Indian Point 2
3Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Plant Start-Up Procedure Regarding MBFP Turbine Runback Arm/Defeat Switch
A Green, self-revealing non-cited violation (NCV) of Technical Specification 5.4.1, “Administrative Controls - Procedures,” was identified, because Entergy did not implement the requirements of plant startup procedure 2-POP-1.3, "Plant Startup from Zero To 45% Power.” Specifically, operators performed a step out of sequence in the plant operating procedure that was not warranted by plant conditions, and resulted in a main turbine runback followed by a manual reactor trip initiated by control room operators. Entergy entered this issue into the corrective action program, initiated procedural enhancements, performed a post-trip evaluation, and a root cause evaluation.

The inspectors determined that this finding was more than minor because it was associated with the human performance attribute of the Initiating Events cornerstone and impacted the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated this finding using the Phase 1 analysis of IMC 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” and determined it to be of very low safety significance because it did not contribute to the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would be unavailable.

The finding had a cross-cutting aspect in the area of human performance because Entergy staff utilized work practices that did not support effective human error prevention techniques by proceeding in the face of uncertainty and unexpected circumstances, when they prematurely positioned the arm/defeat switch contrary to plant procedures and conditions. (H.4(a))
Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Follow Camera Controls Procedure Resulting in RFI Induced MBFP Runback and Subsequent Manual Reactor Trip
A Green, self-revealing finding was identified because Entergy did not implement procedural requirements to evaluate flash photography in the vicinity of sensitive control cabinets. Specifically, Entergy did not implement procedure EN-NS-214, “Camera Controls for Access and Use,” and evaluate the potential impact of flash photography on sensitive control circuitry. Radiofrequency interference (RFI) from the digital camera during flash photography resulted in a main boiler feed pump runback which required a subsequent manual reactor trip. Entergy entered the issue into the corrective action process, performed site-wide training regarding the potential impacts of RFI from digital cameras on digital plant equipment and reinforced expectations to site
personnel regarding procedural compliance.

The inspectors determined that this finding was more than minor because it was associated with the human performance attribute of the Initiating Events cornerstone and impacted the objective of limiting the likelihood of
those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated this finding using Phase 1 of IMC 0609, Appendix A, “Determining the Significance of Reactor Inspection Findings for At-Power Situations.” The inspectors determined that this finding was of very low safety significance because it did not contribute to both the likelihood of a
reactor trip and the likelihood that mitigation equipment or functions would not be available.

The inspectors determined that this finding has a cross-cutting aspect in the area of human performance because Entergy did not effectively communicate expectations regarding procedural compliance and personnel did not follow the applicable procedures. (H.4(b))
Inspection Report# : 2008003 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: FIN Finding
FAILURE TO IMPLEMENT CORRECTIVE ACTIONS ASSOCIATED WITH AGING CAPACITOR DEGRADATION IN A POWER SUPPLY FOR THE MAIN FEEDWATER SUCTION PRESSURE TRANSMITTER
A self-revealing Green finding was identified because Entergy did not implement corrective actions for an adverse condition associated with aging critical power supplies. The inspectors determined that the failure to implement corrective actions was a performance deficiency because it was controry to the requirements of Entergy's procedure EN-LI-102, "Corrective Action Process." Entergy placed this issue in the

corrective action program and initiated actions to replace all single-point vulnerable instrument power supplies and all high critical instrument power supplies at both Indian Point Unit 2 and Indian Point Unit 3 that have not already been replaced.

The inspectors determined this finding was more than minor because it wass associated with the Equipment Performance attribute of the Initiang Events cornerstone, and it impacted the cornerstone; and it impacted the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety systems. Specifically, aging capacitors caused the failure of the power supply to the feedwater low suction pressure transmitter, which caused a reduction of main boiler feed pump speeds and resulted in operators initiating a manual reactor trip on February 28, 2007. The inspectors evaluated the significance of this finding usning Phase 1 of IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was determined to be of very low safety significance (Green) because, while it was a transient initiator that resulted in a reactor trip, it did not contribute to the likelihood that mitigation equipment or functions would not be available.
Inspection Report# : 2007005 *(pdf)*

Mitigating Systems

Significance:  Aug 15, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Control of Internal Recirculation Pumps
•Green. The team identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, Design Control, because Entergy did not verify the adequacy of the internal recirculation pump minimum flow rates. Specifically, Entergy did not verify the adequacy of the pump minimum flow rates for sustained operation under low flow rate conditions or for strong-pump to weak-pump interactions which could result in dead-heading the weaker pump during parallel pump operation. Following identification of the issue, Entergy revised the Emergency Operating Procedures (EOP) to not start a second internal recirculation pump during conditions of high head recirculation, submitted a licensee event report (LER) for each generating unit, and entered the issue into the corrective action program.

The finding was determined to be more than minor because it is associated with the design control attribute of the Mitigating Systems (MS) Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. On Unit 2, the team determined the finding was of very low safety significance because it was a design or qualification deficiency confirmed not to result in loss of operability or functionality.

The deficiency was not indicative of current performance because the modification on Unit 2 was performed in May 2000. Therefore, there was no cross-cutting aspect.

Inspection Report# : 2008012 *(pdf)*

Significance:  Aug 08, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Auxiliary Feedwater System Configuration Control Deficiencies
The inspectors identified a Green NCV of Technical Specification 5.4.1, “Administrative Controls - Procedures,” because Entergy did not implement the Auxiliary Feedwater (AFW) operating procedures required by Regulatory Guide 1.33 Appendix A. Specifically, the inspectors identified an AFW drain valve that was not in the required position and an AFW isolation valve that was in the correct position but was not locked as required. Entergy evaluated the as-found configuration of the valves and determined that the AFW system operability was not impacted. Entergy also performed system alignment verifications of AFW and other safety-related systems as part of an extent-of-condition review.

The inspectors determined the finding was more than minor because it was associated with the configuration control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined the significance of the finding using Inspection Manual Chapter 0609.04, “Phase 1 – Initial Screening and Characterization of Findings.” The inspectors determined that this finding was of very low safety significance because the finding did not result in a loss of safety function and did not screen as potentially risk-significant due to external events initiating events. Specifically, the inspectors determined that the as-found configuration of the identified components did not adversely impact system operability. The finding had a cross-cutting aspect in the area of human performance because operators did not use adequate self and peer checking techniques when shutting an open drain valve or when attaching a locking device to an isolation valve. (H.4(a))

Inspection Report# : 2008004 *(pdf)*

Significance:  Jul 29, 2008
Identified By: NRC

Item Type: NCV NonCited Violation
On-line Leak Repairs Made Without Use of Proper Procedures
The inspectors identified a non-cited violation of Technical Specification 5.4.1, “Procedures,” when Entergy did not implement on-line leak repair procedures to repair a steam leak on valve MS-2A. Specifically, Entergy performed multiple leak sealant injections on valve MS-2A without engineering controls described in station on-line leak repair procedures. Corrective actions planned included reviewing this issue with the planning and component engineering departments and determining if training on the on-line leak sealing procedures is warranted.

The finding was more than minor because, if left uncorrected, inadequate control of leak-sealant injections would become a more significant safety concern. The inspectors determined the significance of the finding using Inspection Manual Chapter 0609.04, “Phase 1 – Initial Screening and Characterization of Findings.” The finding was determined to be of very low safety significance (Green) because it did not represent a loss of system safety function. Specifically, Entergy’s operability evaluation concluded that the sealant that was injected extruded back out of the leak path and likely did not reach the valve’s seat or hinge. The finding had a cross cutting aspect related to work control in the area of Human Performance. Entergy personnel did not appropriately plan work activities to conduct online leak repairs on a safety related component. Specifically, Entergy did not identify necessary engineering procedures to adequately perform leak seal repairs on MS-2A during the planning process. These procedures provide necessary limitations, contingencies, and abort criteria. (H.3.(a))
Inspection Report# : 2008004 *(pdf)*

Significance: G Jul 26, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
City Water Tank Below Required Level due to Inadequate Design Change Implementation
The inspectors identified a non-cited violation of Technical Specification 5.4.1, “Procedures,” because Entergy did not implement portions of an engineering change package for an alarm setpoint change following modification to the city water tank minimum required water volume calculation. As a result, city water tank level dropped below the minimum water level required by the Technical Requirements Manual. Corrective actions included updating plant procedures and training of personnel.

The finding was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the Cornerstone’s objective to ensure the capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined the significance of the finding using a phase 1 analysis described in Inspection Manual Chapter 0609 Appendix F, “Fire Protection Significance Determination Process.” The finding was determined to be of very low safety significance (Green) because the degradation rating was determined to be low. The finding had a cross-cutting aspect related to formally defining the authority and roles for decisions affecting nuclear safety in the area of Human Performance in that Entergy management did not ensure that roles and responsibilities were communicated clearly to a member of the engineering change team responsible for implementing Operations procedure changes. As a result, the proper procedure changes were not made to plant procedures and logs which ultimately led to unmitigated low levels in the city water tank. (H.1(a))
Inspection Report# : 2008004 *(pdf)*

Significance: G Jun 30, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Site Procurement Procedure for EDG Temperature Control Valve Elements
The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings” because Entergy personnel did not implement the requirements of procedure SAO-270, “Procurement Program,” for the procurement of safety related temperature control valve (TCV) elements for the emergency diesel generators (EDGs). Specifically, Entergy did not perform a technical evaluation as required for the TCV elements which resulted in the purchase and installation of incorrect TCV elements on the 21 and 22 EDGs between 2002 and 2003.

The inspectors determined that this finding was more than minor because it was associated with the human performance attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated this finding using the Phase 1 analysis in IMC 0609, Appendix A, “Determining the Significance of Reactor Inspection Findings for At-Power Situations.” The inspectors determined that this finding was of very low safety significance (Green) because the installation of incorrect TCV elements represented a design deficiency that was confirmed not to result in a loss of operability of the EDGs. Specifically, engineering analysis verified past EDG operability was maintained based on
analysis that assumed the highest observed service water temperature over the past three years. Entergy entered this issue into the corrective action program and installed the correct TCV elements in 21 and 22 EDGs.
Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Station Blackout/Appendix-R Diesel Generator Post Modification Test Deficiencies
The inspectors identified a Green NCV of Technical Specification 5.4.1, “Administrative Controls - Procedures,” because Entergy did not

implement the requirements of EN-DC-117, “Post Modification Testing and Special Instructions,” to control revisions to the station blackout/Appendix R diesel generator (SBO/App-R DG)
post modification test, or to review and approve the test results. Specifically, the SBO/App-R DG post modification test was not sufficient to demonstrate the SBO/App-R DG could perform its intended design functions. As a corrective measure, Entergy subsequently performed additional testing to demonstrate system operability.

The inspectors determined the finding was more than minor because it was associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the post modification test deficiencies represented reasonable doubt regarding the
operability of the SBO/App-R DG. The inspectors evaluated this finding using the Phase 1 analysis in IMC 0609, Appendix A, “Determining the Significance of Reactor Inspection Findings for At-Power Situations.” The inspectors determined that this finding was of very low safety significance (Green) because it was not a design or qualification deficiency; it did not represent a loss of system safety function of a single train; and it did not screen as potentially risk significant due to external events.

The finding had a cross-cutting aspect in the area of human performance because Entergy's supervisory and management oversight of work activities was not adequate to ensure testing was properly performed. H.4(c))
Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Operating Procedure for Station Blackout/Appendix-R Diesel Generator
The inspectors identified a Green NCV of Technical Specification 5.4.1, “Administrative Controls - Procedures,” because the SBO/App-R DG operating procedure 2-SOP-27.6, "Appendix-R Diesel Generator Operation," was not adequate. Specifically, the procedure could not be performed as written, and was not sufficient to ensure operators could start the SBO/App-R DG, and energize an electrical bus within the required time of one hour. Entergy subsequently revised the procedure to correct the most critical deficiencies, and pre-staged equipment to reduce the time needed to energize a bus. As an interim corrective measure, Entergy relied upon operator training for other deficiencies, pending final corrective actions.

The finding was more than minor because it was associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the procedure deficiencies resulted in a reasonable doubt whether the SBO/App-R DG could be started and aligned in a timely and correct manner, as required by design. The inspectors evaluated this finding using the Phase 1 analysis in IMC 0609, Appendix A, “Determining the Significance of Reactor Inspection Findings for At-Power Situations.” The inspectors determined that this finding was of very low safety significance (Green) because it was not a design or qualification deficiency; it did not represent a loss of system safety function of a single train; and it did not screen as potentially risk significant due to external events.

The finding had a cross-cutting aspect in the area of human performance because Entergy’s procedure for the SBO/App-R DG was not adequate to assure nuclear safety in implementing necessary operator actions for a SBO. (H.2(c))
Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Seismic Design Control Associated with a Temporary Modification to Emergency Diesel Generator Service Water Return Piping
The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion III, “Design Control” because Entergy did not adequately analyze, document, or translate seismic considerations for temporary service water hoses installed on the 21 and 23 emergency diesel generator (EDG) heat exchangers during the March 2008 refueling
outage. Entergy entered the issue into the corrective action program, evaluated past operability concerns, and added restraints to the temporary service water hoses.

The inspectors determined that this finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of the EDG system during a Seismic Class I design basis event. This finding was evaluated using IMC 0609, Appendix G, attachment 1, “Shutdown Operations Significance Determination Process Phase 1 Operational Checklists for Both PWRs [Pressurized Water Reactors] and BWRs [Boiling Water Reactors].” The finding was determined to be of very low safety significance (Green) because the finding did not degrade the equipment, instrumentation, training or procedures needed for any shutdown safety function. Entergy performed a subsequent operability evaluation which provided reasonable assurance that the EDGs would have performed the safety function
during a design basis seismic event.

The finding had a cross-cutting aspect in the area of human performance because Entergy personnel made non-conservative assumptions regarding the seismic adequacy of the temporary hose modification. Specifically, Entergy personnel did not perform an engineering analysis to validate their assumptions that the temporary service water hoses would not adversely impact the seismic qualification of the EDGs. (H.1

(b))
Inspection Report# : 2008003 *(pdf)*

Significance: G Jun 30, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Quality Records for Containment Sump Modification
The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVII, "Quality Assurance Records," because Entergy did not maintain sufficient records to furnish evidence that a safety-related containment sump modification was performed in accordance with the design documentation. Specifically, nine of 63 work orders
completed during the 2R17 refueling outage for the modification were missing data or missing entirely due to being lost, misplaced, or contaminated during implementation of the project. Entergy entered the issue into the corrective action process, evaluated the operability impact of the missing data, and performed visual inspections of accessible safety-related welds during the 2R18 refueling outage.

The inspectors determined that this finding was more than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated this finding using the Phase 1 analysis in IMC 0609, Appendix A,
"Determining the Significance of Reactor Inspection Findings for At-Power Situations." The inspectors determined that this finding was of very low safety significance because the finding did not represent a design or qualification deficiency, did not result in a loss of safety function, and did not screen as potentially risk-significant due to external events initiating events. Entergy performed inspections during 2R18 and completed technical evaluations of missing data that provided reasonable assurance of sump operability.

The finding had a cross-cutting aspect in the area of human performance because Entergy did not appropriately coordinate work activities to communicate, coordinate, and cooperate with each other during activities in which interdepartmental coordination was necessary to assure plant and human performance. (H.3(b))
Inspection Report# : 2008003 *(pdf)*

Significance: G Mar 31, 2008
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to provide an adequate procedure for installing cable termination lugs on the 21 service water pump motor cables.
A self-revealing, non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (CFR) Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for failure to provide an adequate procedure for installing cable termination lugs on the 21 service water pump motor cables. As a result, Entergy maintenance personnel installed undersized terminal lugs for the 21 service water pump motor jumper cables on January 26, 2000, which resulted in a high resistance connection that degraded over time and eventually caused the cables to fail while the pump was in service on January 27, 2008. Entergy entered this issue into the corrective action program, replaced the jumper cables with insulated bus bars, tested the motor for damage, and changed Engineering Standard ENN-EE-S-008-IP, "IPEC [Indian Point Energy Center] Electrical Cable Installation Standard," to ensure the use of correctly-sized terminal lugs in the future. [Entergy also plans to perform an extent of condition review that includes thermography and visual inspections of other safety related motor cable terminations.]

The inspectors determined that this finding was more than minor because it was associated with the procedure quality attribute of the Mitigating Systems cornerstone; and, it affected the objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, Entergy failed to provide adequate procedural steps to ensure that the 21 service water pump was installed with appropriate electrical connectors. The inspectors evaluated the significance of this finding using Phase 1 of Inspection Manual Chapter 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations," and determined that it was of very low safety significance (Green) because it was not a design or qualification deficiency; it did not represent a loss of system safety function of a single train for greater than its Technical Specification allowed outage time; and it did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events.

Inspection Report# : 2008002 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO IDENTIFY DEGRADED FIRE BARRIER IN EDG BUILDING
The inspectors identified a Green non-cited violation (NCV) of Unit 2 license condition 2.K. because Entergy failed to identify a degraded fire barrier in the emergency diesel generator (EDG) room. Specifically, the inspectors identified a backflow preventer valve in an EDG sump that could not perform its function due to a large allen wrench that was positioned in a manner that would prevent the valve from shutting. Entergy removed the tool, verified functionality of the valve, and entered this condition into the corrective action program.

The inspectors determined that this finding was more than minor because it was associated with the Protection Against External Factors

attribute of the Mitigating Systems cornerstone; and, it affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was evaluated using Phase 1 of Inspection Manual Chapter (IMC) 0609 Appendix F, “Fire Protection Significance Determination Process.” The inability of the backflow prevent alve to perform its function represented "moderate" degradation based on the size of the drain line, and the distance between the EDG sumps. The inspectors determined that this issue was of very low safety significance (Green) because the degradation of the fire barrier was ‘moderate,’ and there was a non-degraded automatic, water-based fire suppression system in the affected fire area.

The inspectors determined that this finding had a cross-cutting aspect in the area of problem identification and resolution because Entergy personnel routinely conduct tours in the EDG building and had not identified the degraded condition of the backflow preventer valve. (P.1(a))

Inspection Report# : 2007005 *(pdf)*

Significance: G Oct 03, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Degraded 12 Fire Main Booster Pump Cell Fire Door
The inspectors identified a Green non-cited violation (NCV) of License Condition 2.K., fire protection program, because Entergy failed to identify a degraded three-hour rated fire door on the east entrance of the 12 fire main booster pump room. The door was determined to be inoperable due to a misalignment, which prevented the door from fully closing. Entergy entered this issue into their corrective action program, took immediate compensatory actions, realigned the door, and ensured that it would fully close.

The inspectors determined that this finding was more than minor because it was associated with the protection against external factors attribute of the Mitigating Systems cornerstone; and it affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was evaluated using Phase 1 of Inspection Manual Chapter (IMC) 0609 Appendix F, “Fire Protection Significance Determination Process.” The inspectors determined that this issue was of very low safety significance because the degradation of the fire barrier was “moderate” based on the fire door displaying significant degradation affecting its performance or reliability. However, it was still expected to provide some defense-in-depth benefit. Specifically, the fire door was expected to provide a minimum of 20 minutes fire endurance protection, and the in-situ fire ignition sources and flammable materials were positioned such that the degraded fire door would not be subject to direct flame impingement.

The inspectors determined that the finding had a cross-cutting aspect in the area of problem identification and resolution because Entergy personnel who routinely traverse through or past the fire door had not identified the degraded condition. (P.1(a))
Inspection Report# : 2007004 *(pdf)*

Significance: G Oct 03, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
PROCEDURE INADEQUATE TO ENSURE OPERABILITY OF SI PUMPS DURING VENTING
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” because Entergy did not ensure that procedures associated with operation of the safety injection (SI) system during venting were appropriate to the circumstances. Specifically, procedure 2-PT-M108, “RHR/SI [residual heat removal/safety injection] System Venting,” did not have appropriate controls to ensure the safety injection piping and pumps remained operable during accident conditions. Entergy entered the issue into their corrective action program and revised the venting procedure to ensure operator actions are appropriately evaluated and credited to maintain operability of the system.

The inspectors determined that this finding was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone; and it impacted the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding was evaluated using Phase 1 of IMC 0609, Appendix A, “Determining the Significance of Reactor Inspection Findings for At-Power Situations.” The inspectors determined this finding resulted in a loss of function of a single train of SI for approximately five minutes. Because the total inoperability time was less than the allowed outage time of 72 hours, and the finding is not potentially risk significant due to a seismic, flooding, or severe weather initiating event, this finding screens as very low safety significance (Green).

The inspectors determined that this finding had a cross-cutting aspect in the area of human performance because Entergy did not ensure that complete, accurate and up-to-date procedures were available. (H.2(c))

Inspection Report# : 2007004 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
FAILURE TO IMPLEMENT CORRECTIVE ACTIONS TO PREVENT EXCEEDING PM FREQUENCY FOR 25 FCU
A self-revealing Green NCV of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action,” was identified because Entergy failed to implement effective corrective actions for a condition adverse to quality associated with reduced flow to the containment fan cooler units due to fouling, which resulted from exceeding the periodicity of preventative maintenance activities to clean and inspect the containment fan cooler units. On September 16, 2007, the 25 containment fan cooler unit was declared inoperable due to inadequate service water flow caused by partial fouling of the heat exchanger. Entergy implemented actions to restore service water flow to the 25 containment fan cooler unit, and they entered this issue into their corrective action program to schedule the maintenance on other containment fan cooler units, and to evaluate the appropriate periodicity for the preventative maintenance activity.

The inspectors determined that this finding was more than minor because it was associated with the Structures, Systems, and Components and Barrier Performance attribute of the Barrier Integrity cornerstone; and, it impacted the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the failure to take effective corrective actions to prevent exceeding the periodicity for the cleaning and inspection of the 25 containment fan cooler unit resulted in partial flow blockage to the component, and a reduction in flow below the value required by Technical Specifications. The inspectors evaluated this finding using IMC 0609, Appendix H, “Containment Integrity Significance Determination Process.” This was determined to be a Type B finding because it potentially impacted containment integrity, but did not result in the increased likelihood of an initiating event. This finding was determined to be of very low safety significance (Green) because it did not impact a function that was important to large early release frequency.

Inspection Report# : 2007005 *(pdf)*

Significance: G Dec 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO IMPLEMENT CORRECTIVE ACTIONS FOR DEGRADED CONTAINMENT FAN COOLER UNIT SERVICE WATER FLOW
The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action,” because Entergy failed to implement corrective actions to monitor a condition adverse to quality associated with degradation of service water flow rates to the fan cooler units following the failure of surveillance test 2-PT-Q016, "Containment fan cooler Unit Cooling Water Flow Test," Revision 1, on September 16, 2007. Entergy's corrective actions, which had been developed following failure of the 25 containment fan cooler unit to pass the surveillance flow acceptance criteria on September 16, 2007, included compensatory measures for operations personnel to monitor service water flow to the containment fan cooler unit and to increase the frequency of the quarterly surveillance test. Operations personnel recorded the five containment fan cooler unit service water flow rates in the unit narrative logs, but did not effectively monitor the service water flow rates. Consequently, Entergy failed to identify degrading service water flow and take action prior to the containment fan cooler units being rendered inoperable due to insufficient flow on October 14, 2007. Entergy entered this issue into the corrective action program and updated their action plan to begin systematic trending of service water flows to the containment fan cooler units until the next refueling outage.

The inspectors determined this finding was more than minor in accordance with IMC 0612, Appendix E, "Examples of Minor Issues," Example 3.g, because the failure to implement a corrective action contributed to the service water flows being out-of-specification to all five containment fan cooler units. The inspectors evaluated this finding using IMC 0609, Appendix H, “Containment Integrity Significance Determination Process.” This was determined to be a Type B finding because it potentially impacted containment integrity, but did not result in the increased likelihood of an initiating event. This finding was determined to be of very low safety significance (Green), because it did not impact a function that was important to large early release frequency.

The inspectors determined that this finding has a cross-cutting aspect in the area of problem identification and resolution because Entergy did not effectively implement corrective actions for a condition adverse to quality associated with degradation of service water flow to containment fan cooler units. (P.1(d))

Inspection Report# : 2007005 *(pdf)*

Significance: G Oct 03, 2007
Identified By: NRC
Item Type: NCV NonCited Violation

UNTIMELY CORRECTIVE ACTIONS TO REPAIR A DEGRADED SERVICE WATER FLOW INSTRUMENT
The inspectors identified a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, “Corrective Actions,” in that, Entergy did not implement timely corrective actions for a degraded condition associated with the 25 Containment Fan Cooler Unit (FCU) flow indicator. Specifically, the failure to take timely corrective actions for the degraded service water flow indicator for the 25 FCU, initially identified in October 2006, resulted in the inability to ensure that sufficient service water flow was available for the component to perform its intended function. Subsequently, it was identified that a reduced service water flow condition did exist. Entergy entered the issue into their corrective action program and implemented corrective actions to restore adequate indication of service water flow to the 25 FCU. Entergy is evaluating maintenance practices to determine the appropriateness of a periodic blow-down of the transmitter impulse lines to prevent sediment buildup.

The inspectors determined that this finding was more than minor because it was associated with the structure, system, and component and barrier performance attribute of the Barrier Integrity cornerstone; and it impacted the cornerstone objective of providing reasonable assurance that the physical design barrier (containment) protects the public from radionuclide releases caused by accidents or events. This finding was evaluated using IMC 0609, Appendix H, “Containment Integrity Significance Determination Process.” This was determined to be a Type B finding because it potentially impacted containment integrity but did not result in the increased likelihood of an initiating event. This finding was determined to be of very low safety significance because, while it could impact late containment failure, it did not impact a function that was important to large early release frequency.

The inspectors determined that this finding had a cross-cutting aspect in the area of problem identification and resolution because Entergy did not thoroughly evaluate the condition when initially identified. (P.1(c))

Inspection Report# : 2007004 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Jun 11, 2008
Identified By: NRC
Item Type: FIN Finding
2008 IP2 Biennial Problem Identification and Resolution Inspection
Identification and Resolution of Problems

The inspectors concluded that Entergy identified, evaluated, and resolved problems. The inspectors verified that Entergy had taken actions to address previous NRC findings. In general, Entergy personnel identified problems and entered them into the corrective action program (CAP) at a low threshold. The inspectors also determined that Entergy properly screened equipment issues for operability and reportability, as well as prioritized and evaluated them commensurate with their safety significance. Evaluations appropriately considered extent of condition, generic issues, and previous occurrences. However, broader issues involving evaluations into substantive cross-cutting issues were not appropriately prioritized and evaluated commensurate with the significance of the issues.

The inspectors determined that corrective actions addressed the identified causes and were generally implemented in a timely manner. Notwithstanding, the inspectors noted several examples of minor conditions involving identification of issues, prioritization and quality of

evaluations, and implementation of corrective actions. Entergy's audits and self-assessments were thorough and probing. The inspectors concluded that Entergy identified, reviewed, and applied relevant industry operating experience (OE). Based on interviews, observations of plant activities, and reviews of the CAP and the Employees Concerns Program (ECP), the inspectors determined that site personnel were willing to raise safety issues and to document them in the CAP.

While the inspectors recognized Entergy has reassessed and revised their corrective action plans to address the substantive cross-cutting issue in the area of procedure adequacy, the inspectors concluded that minimal progress had been made in implementation of the planned actions. The inspectors also concluded that Entergy had identified corrective actions and were in the early stages of implementation of corrective action plans to resolve the substantive cross-cutting issue in corrective action implementation

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Last modified : November 26, 2008